

MULTIPLE EXPOSURE METHOD FOR CIRCUIT
PERFORMANCE IMPROVEMENT

ABSTRACT

An optical lithography method is disclosed that uses multiple exposures to decrease the minimum grid pitch of regularly spaced features. The desired grid pitch is selected to minimize the circuit area growth arising from the use of a grid constraint during layout. The desired grid is decomposed into at least two interleaved mask grids having a mask grid pitch that is greater than the desired grid pitch. Each mask grid is exposed to print a portion of the desired grid until the complete desired grid is printed to the die.